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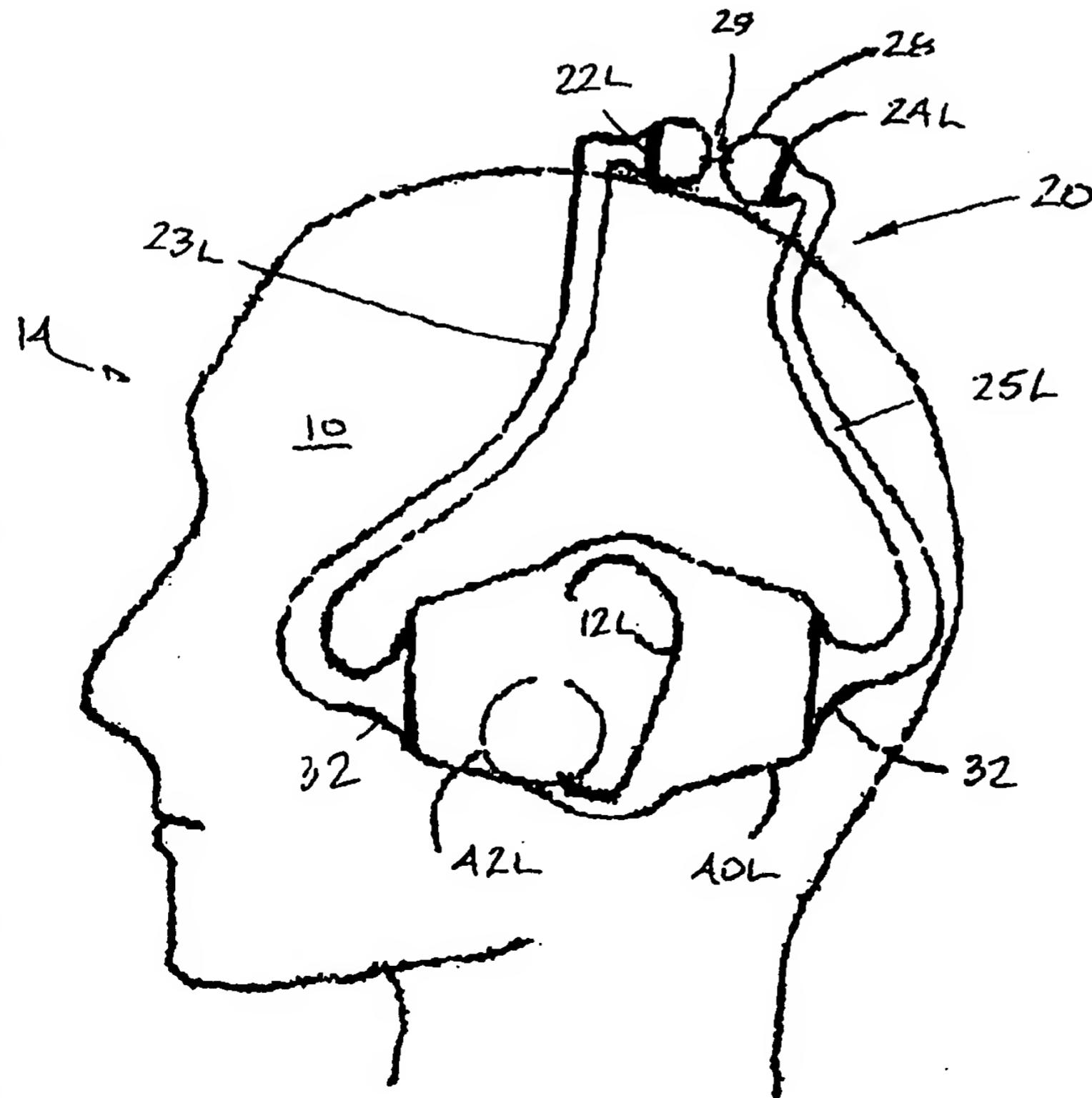
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(54) Title: HEADPHONES FOR 3D SOUND



(57) Abstract: Headsets (20, 50, 60, 71) provide surround sound and full 3 dimensional effects to a user to simulate the effects of direction and sound source. Advantages include: surround sound effect without the limitations of Head-Related Transfer Functions, and pinna effect customized to each user's ears; horn shape tube outlets (32) to create an efficient transmission of sound; ability to space the headset speakers (22, 24) away from the user's ear and to maintain sound quality by addition of a chamber (28) behind the speakers (22, 24), with the aid of tube sound guides (23, 25) and the horn shaped outlets; and, no need for electronic hardware to process the electrical signals to create desired effects as placement of the speakers creates the correct timing, and damping material (34) in the tubes between speakers creates a desired intensity drop. Head tracking capability is also provided.

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